

Please add new Claims 31-38.

- A1*
cont
31. (New) A sensor assembly for measuring pressure, comprising:
a first diaphragm having a surface which contacts a medium; and
a second diaphragm positioned next to the first diaphragm, the first diaphragm transmitting a force to the second diagram as the medium applies a pressure to the first diagram, the second diaphragm including an electronic circuit that converts the force transmitted to the second diagram to an electrical signal representative of the pressure applied to the first diagram.
32. (New) The sensor assembly of claim 31, wherein the first diaphragm and second diaphragms are made of silicon.
33. (New) The sensor assembly of claim 31, wherein the first diaphragm includes an outer rim and a central boss, the outer rim and the central boss defining an annular recessed region.
34. (New) The sensor assembly of claim 33, wherein the second diaphragm includes an outer rim, a central island and a side island adjacent to the central island, the outer rim and the side island defining a first narrow groove, and the side island and central island defining a second narrow groove.
35. (New) The sensor assembly of claim 34, further comprising a first strain gage spaced from the first narrow groove, and a second strain gage spaced from the second narrow groove.
36. (New) The sensor assembly of claim 35, wherein the first strain gage has an axis aligned substantially parallel to the first narrow groove, and the second strain gage has an axis aligned substantially parallel to the second narrow groove.